

Message

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Sent: 1/8/2022 2:46:30 AM
To: Nichols, Miranda (MPCA)
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Subject: List Birch Lake as impaired

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Please add Birch Lake to the 2022 Draft Impaired Waters List, identifying it as a wild rice Water Quality Limited Segment impaired due to sulfate.

Every day, Cleveland Cliffs dumps tons of sulfate into Birch Lake. For example they were dumping 5.3 tons of sulfate per day into the lake in October, 2020 and 3.8 tons per day in May, 2021. Dumping sulfate mine was into Birch Lake is the reason that sulfate levels in Birch Lake are over 10 mg/L. In other lakes that are not subject to mine waste dumping sulfate concentrations are under 2 mg/L. Sulfate pollution is evident from the disappearance of wild rice from the lake, however it is undisputed that Birch Lake is a wild rice water and wild rice has grown there in the past. For this reason Birch Lake should be listed as impaired.

Increasing sulfate to levels above 2 mg/L promotes mercury contamination in fish. Sulfate feeds sulfate reducing bacteria which create methyl mercury which bioaccumulates in fish, raising the concentration by a factor of one million. Mine waste dumped into Voyageurs Park Lakes causes sulfate concentrations to increase from background level of 2 mg/L (Kabetogama) to 5 mg/L (Crane Lake) and this causes mercury concentration in fish to be four times higher in Crane Lake than in Kabetogama (data for young of the year yellow perch from the US Geological Survey published in 2017). Data from the MPCA Fish Contaminant Monitoring Program (FCMP) database for mercury in walleyes is in perfect agreement with the report from the USGS – walleyes in Crane Lake are much more heavily contaminated than walleyes in Lake Kabetogama.

Mercury in game fish is the reason that 1 in 10 babies born in the Lake Superior Watershed in northern Minnesota have unsafe levels of mercury.

Water from Birch Lake flows into the BWCA. Because of their clarity and depth, lakes in the BWCA are especially vulnerable to mercury contamination of fish caused by sulfate, just like the lakes in Voyageurs Park.

Listing Birch Lake as a sulfate-impaired wild rice water is necessary to prevent further harm to wild rice, increased mercury contamination of fish, and degradation of the Boundary Waters.

Thank you.

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